

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

Claims 1-21. (Cancelled).

22. (currently amended) A resonator sensor for analyzing a fluid, comprising an assembly comprising (i) an electronic component on, including affixed to or integral with, a platform, and (ii) a tuning fork resonator having a sensing surface for exposure to the fluid, the resonator being on, including affixed to or integral with, the platform with a spaced relationship between the sensing surface and the platform, the resonator being in electrical communication with the electronic component, wherein the tuning fork resonator has a spacing from any adjacent structure of at least one width of a tine of the tuning fork and

a protective layer encapsulating at least a portion of the assembly.

23. (currently amended) A resonator sensor for analyzing a fluid, comprising:

an assembly comprising (i) an electronic component on, including affixed to or integral with, a platform, (ii) a coated or uncoated flexural tuning fork resonator having a sensing surface for exposure to the fluid, the flexural resonator being on, including affixed to or integral with, the platform with a spaced relationship between the sensing surface and the platform, and (iii) a conductive path between the electronic component and the flexural resonator; wherein the tuning fork resonator has a spacing from any adjacent structure of at least one width of a tine of the tuning fork, and

a protective layer encapsulating at least a portion of the assembly.

24. (previously presented) The resonator sensor of claims 22 or 23 wherein the resonator is a flexural resonator adapted so that the sensing surface of the resonator can displace fluid during operation of the sensor.

25. (cancelled) The resonator sensor of claims 22 or 23 wherein the resonator is a tuning fork resonator.

26. (currently amended) A resonator sensor for analyzing a fluid, comprising:

an assembly comprising (i) an integrated circuit on, including affixed to or integral with, a platform, (ii) a tuning fork resonator having a sensing surface for exposure to a fluid, the tuning fork resonator being on, including affixed to or integral with, the platform with a spaced relationship between the exposed sensing surface and the platform, wherein the tuning fork resonator has a spacing from any adjacent structure of at least one width of a tine of the tuning fork, and (iii) a conductive path between the integrated circuit and the tuning fork resonator; and

a protective layer encapsulating at least a portion of the assembly, the encapsulated portion of the assembly comprising the integrated circuit, the protective layer being effective to protect the integrated circuit from operating conditions of the fluid while allowing the sensing surface of the resonator to be exposed to the fluid.

27. (previously presented) The resonator sensor of claim 26 wherein the protective layer is effective to protect the integrated circuit from operating conditions comprising a temperature range of at least -40° C to 170° C.

28. (previously presented) The resonator sensor of claim 26 wherein the sensing surface of the tuning fork resonator is coated with a support layer selected from a polymer, a ceramic, or combination thereof.

29. (previously presented) The resonator sensor of claim 26 wherein the spaced relationship between the exposed sensing surface and the platform is at least one width of at least one tine of the tuning fork.

30. (currently amended) A resonator sensor for analyzing a fluid, comprising:

a flexural tuning fork resonator having a sensing surface for exposure to the fluid, the resonator being affixed to a platform with a spaced relationship between the exposed

sensing surface and the platform, wherein the tuning fork resonator has a spacing from any adjacent structure of at least one width of a tine of the tuning fork

a support disposed between the resonator and the platform,

a conductive path for electrically connecting the resonator to a circuit for [for] providing stimulus to the flexural resonator and for receiving a response signal from the flexural resonator, and

a housing comprising at least one wall and substantially surrounding the resonator while maintaining exposure of the sensing surface to the fluid.